

Cheung, Wendy

From: pat obrien <pwob@comcast.net>
Sent: Friday, May 26, 2017 12:13 PM
To: Cheung, Wendy
Subject: [SPAM] RE: [SPAM] RE: [SPAM] FW: RAT survey scope of work

Got it.

From: Cheung, Wendy [mailto:Cheung.Wendy@epa.gov]
Sent: Friday, May 26, 2017 11:55 AM
To: pat obrien
Cc: Tinsley, Chuck
Subject: RE: [SPAM] RE: [SPAM] FW: RAT survey scope of work

Correct, you have already submitted the baseline temperature survey and do not need to rerun it. So it sounds like we're back to square one. I'd like to summarize the options again:

1. Demonstrate that PII MI is met by:
 - a) Initially a RATS. [We also talked about NOISE and Oxygen Activation logs as alternatives] The pressure at which this test is conducted will establish the MAIP, but the pressure shall not exceed 3073 psi. This will give you the option to lower your cost by running the RATS at a lower pressure.

In the future, if a higher MAIP is needed, a new RATS will need to be run at the higher requested pressure (this is to demonstrate that the cement will maintain integrity at the new pressure). A new SRT will only be required if the MAIP is to exceed 3073 psi.
 - b) Subsequent to the initial RATS, annual demonstrations will be required – it can be a temperature survey or RATS.
 - c) If RATS is chosen in b), a temperature survey is still required every 5 years (One note: If NOISE or Oxygen Activation log is used it can replace the TEMP).
NOTE: If RATS/TEMP fail, the well will need to be remediated.
2. Perf and squeeze across the confining zone.
3. Successful CBL (this can be now or after the squeeze job). The benefit of a successful demonstration is that you do not need to run additional logs (i.e. annual RATS/TEMP – keeping in mind the 5 year TEMP (or NOISE/OXY ACT) is required under all circumstances).

From: pat obrien [mailto:pwob@comcast.net]
Sent: Friday, May 26, 2017 10:57 AM
To: Cheung, Wendy <Cheung.Wendy@epa.gov>
Cc: Tinsley, Chuck <Tinsley.Chuck@epa.gov>
Subject: [SPAM] RE: [SPAM] FW: RAT survey scope of work

Wendy and Chuck.

According to the Halliburton cement experts, our cure time (between 48 and 60 hours) was much, much more than needed to properly cure the bottom lift. In their opinion another CBL would not result in much bonding improvement. That is why we are opting to run the RAT. If the RAT confirms annular integrity, we will not rerun the CBL.

Just to confirm, we will not run the temp survey with the RAT as we already run a survey a few months ago and have not begun injection into the well yet.

Pat OBrien

From: Cheung, Wendy [<mailto:Cheung.Wendy@epa.gov>]
Sent: Friday, May 26, 2017 10:31 AM
To: pat obrien
Cc: Tinsley, Chuck
Subject: RE: [SPAM] FW: RAT survey scope of work

Pat,

Yes, this is the latest RATS guidance.

For your consideration, if the CBL demonstrates good cement, there will be no need to run the RATS, nor more frequent Part II (as we discussed, initially annually). Please keep in mind though, regardless of the CBL, the TEMP is required at least every 5 years. There may be additional reasons that you'd like to run the RATS (injectivity profile?), but I just want to double check that you were aware of this.

As I've previously mentioned, I'm going to be out of office till June 19th. If you have add'l questions, please contact Chuck Tinsley (Chuck, I hope this is okay with you, I didn't coordinate this with you in advance as I thought we were all set on a path forward. Long story short, ECCV believes the poor CBL was a result of running the CBL too early, before the cement could set (and low density cement – although this wasn't evident in their cementing report) – we've gone thru all the permutations with demonstrating Part II MI (RATS/TEMP), so they are aware. They have elected to rerun the CBL and just got word today that they are interested in running a RATS prior to the CBL.

Wendy

From: pat obrien [<mailto:pwob@comcast.net>]
Sent: Friday, May 26, 2017 9:49 AM
To: Cheung, Wendy <Cheung.Wendy@epa.gov>
Subject: [SPAM] FW: RAT survey scope of work

Hi Wendy,

After receiving additional information from cement and RAT survey experts, we have decided to run the RAT survey first on the DI-2 well. Likely date for the test is the end of June.

We are running the RAT to meet the conditions of the attached EPA guideline. If there is a different or updated guidance document you would like us to use please let me know.

We will add some work to the EPA guidelines. Mainly, we will begin injecting at a low gpm rate and increase flow gradually until we reach the targeted MAIP of 3073 psi and then run the tests. If we cannot reach 3073 psi, we will get as close to that pressure as possible and then run the RAT. We may also inject several slugs of iodine as we ramp up to make sure we can track the radioactive material in time drive.

Any questions or comments, please let me know.

Pat OBrien